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ABSTRACT

About 35 million acres not being cultivated have high potential for crop use and 117 million more have medium potential, according to the 1982 National Resources Inventory (NRI) conducted by the U.S. Department of Agriculture. USDA committees evaluated the economic potential for converting land based on physical characteristics of the soil; size and location of land parcels; type of effort required for conversion; and commodity prices, production costs, and land conversion costs for 1981. High potential land required evidence that similar land had been converted to crop use during 1979-82; medium potential land did not. Converted high potential land would increase cropland area by 8 percent over the 421 million cropland acres inventoried in 1982. The cropland base would increase 36 percent if both high and medium potential land were converted, but soil erosion could increase by just over 1 billion tons annually, nearly 20 percent above 1982. If only high potential lands were converted, the erosion increase could be only about 4 percent. Less favorable cost/price relationships for crop production since 1982, several provisions in the 1985 farm act, and change in the U.S. tax code will all tend to discourage conversions. (Author/KC)

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United States Department of Agriculture

Land Resources for Crop Production

Roger Hexem
Kenneth S. Krupa

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Abstract

About 35 million acres not being cultivated have high potential for crop use and 117 million more have medium potential, according to the 1982 National Resources Inventory (NRI) conducted by the U.S. Department of Agriculture. Converted high potential land would increase cropland area by 8 percent over the 421 million cropland acres inventoried in 1982. The cropland base would increase 36 percent if both high and medium potential land were converted, but soil erosion could increase by just over 1 billion tons annually, nearly 20 percent above 1982. If only high potential lands were converted, the erosion increase could be only about 4 percent. Less favorable cost/price relationships for crop production since 1982, several provisions in the 1985 farm act, and change in the U.S. tax code will all tend to discourage conversions.

Key words: Cropland, potential cropland, cropland conversion, land capability class, soil erosion

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Summary

About 35 million acres have high potential for crop use and 117 million more have medium potential over the next 10-15 years, according to the 1982 National Resources Inventory (NRI) conducted by the U.S. Department of Agriculture. Converted high potential land would increase cropland area by 8 percent over the 421 million cropland acres inventoried in 1982. The cropland base would increase 36 percent if both high and medium potential land were converted, but soil erosion could increase by just over 1 billion tons annually, nearly 20 percent above 1982. If only high potential lands were converted, the increase could be only about 4 percent.

USDA committees evaluated the economic potential for converting land based on physical characteristics of the soil; size and location of land parcels; type of effort required for conversion; and commodity prices, production costs, and land conversion costs for 1981. High potential land required evidence that similar land had been converted to crop use during 1979-82; medium potential land did not.

Conversions of high and medium potential land to crop production would alter regional shares of the U.S. cropland base. Appalachia, the Southeast, and the Southern Plains would gain a larger share of U.S. cropland, but the share held by the Corn Belt, Lake States, and Northern Plains would decline slightly.

Excessive soil erosion, water management problems, and short growing seasons limit conversions on 25 percent of the high and 45 percent of the medium potential land. Tract size and location, land being held for urban or related development, and/or land in long-term use such as forestry and rangeland possibly limit conversions on 30 percent of the high potential land and 45 percent of the medium potential land.

About 35 percent of the high but only 18 percent of the medium potential land was designated directly suitable for crop use without some prior land treatment. Largest acreages were in the Corn Belt, the Northern and Southern Plains, and Appalachia. Land clearing, improved drainage, and erosion control are among the practices needed on 60 percent of the high and 77 percent of the medium potential land prior to cropping.

Several factors may discourage future cropland conversion: (1) less favorable cost/price relationships since 1981; (2) provisions in the 1985 farm act, particularly lower target prices and possible denial of program benefits to those producing crops on newly converted but highly erodible land or on former wetlands; and (3) changes in the Federal tax code which eliminate investment tax credits, repeal the capital gains exclusion, and alter the deductibility of land development costs.

Glossary

Cropland—Land used to produce crops for harvest, including row, small grain, hay, nursery, orchard, and other specialty crops. The land may be used continuously for these crops or in rotation with grasses and legumes.

Forest land—Land on which at least 10 percent of the area is stocked by forest trees of any size, or formerly had such cover and is not currently developed for some nonforest use. In transitional areas, forest land must have a tree canopy of 10 percent or higher to distinguish such land from grassland.

Land capability classification (LCC) (Soil Conservation Service)—Indicates the suitability of various soils for cultivation. Soils in land classes I-III are considered suitable for continuous cultivation while those in land class IV can be cultivated occasionally. Soils in land classes V-VIII are generally considered unsuitable for crops requiring cultivation (see item 2 in references). Land classes II-IV and VI-VIII also have four subclasses reflecting the dominant physical limitation to cultivation. These limitations are susceptibility to erosion (e), excess water (w), soil limitations within the rooting zone (s), and climatic limitations (c).

Major land resource area (MLRA)—Land units grouped according to dominant physical characteristics, including soils, water, climate, land use, elevation, and topography. The United States has 204 MLRA's.

Minor land cover/use—Principally farmsteads and ranch headquarters; other land in farms; mines, quarries, and pits; small builtup areas; and other rural lands.

Nonfederal land—Acreage remaining after deducting federally owned land and water bodies from the total surface area.

Pasture—Land used primarily for production of introduced or native forage plants for livestock grazing. Pasture may consist of a single species in a pure stand, a grass mixture, or a grass-legume mixture.

Potential cropland—Land rated according to potential for conversion to and for sustained management as cropland. This potential—high, medium, low, or zero—was evaluated for all sample points in the inventory except for those on cropland, urban and builtup land, rural transportation land, and water bodies.

Rangeland—Land on which the climax vegetation (potential natural plant community) is predominantly grasses, grasslike plants, forbs, or shrubs suitable for grazing and browsing. Rangeland includes natural grasslands, savannas, many wetlands, some deserts, tundra, and certain forb and shrub communities. Areas seeded to native species or to adapted and introduced species managed like native vegetation are also included.

Rural transportation land—All highways, roads, and railroads outside urban and builtup areas; private roads to farmsteads; logging roads; and other private roads, excluding field lanes.

Urban and builtup land—Nonfederal land consisting of residential, industrial, commercial, and institutional land; construction sites; institutional land; public administrative sites; railroad yards, cemeteries, airports, and golf courses; sanitary landfills, sewage treatment plants, water control structures and spillways, and other land used for such purposes; and small parks (less than 10 acres) within urban and builtup areas.

Land Resources for Crop Production

Roger W. Hexem and Kenneth S. Krupa*

Introduction

Concerns during the 1970's about the capacity of the U.S. land resource base to meet demand for food and fiber production shifted in the 1980's to concerns about excess production, dwindling shares of export markets, and mounting domestic stockpiles of crops. Although U.S. cropland availability is not a current concern, availability for the longer term is always of interest. Adequate food and fiber is a component of maintaining national security. A catastrophe such as severe drought in one or more of the world's principal producing regions could cause rapid and substantial shifts in international commodity markets. The United States has traditionally responded to shortfalls in production and distribution of agricultural commodities. An identification of the acreage with potential for conversion to cropland and some characteristics of these lands is necessary when assessing the longer run productive capacity of U.S. agriculture.

USDA's Soil Conservation Service (SCS) inventoried land uses on nonfederal land in its 1982 National Resources Inventory (NRI). The inventory included estimates of the potential for converting lands not in crop production in 1982 to crop use over the next 10-15 years.

This study examines national and regional land uses developed from the 1982 NRI, the potential cropland as reported by SCS, and some impacts on resource use if potential cropland were converted to crop use. Some changes in economic conditions, Federal farm programs, and Federal tax legislation since 1982 which may affect land-use decisions are also identified.

Background for the 1982 NRI[1]

The 1982 NRI, the latest in a series of SCS national inventories, was completed in cooperation with the Iowa State University Statistical Laboratory. The inventory gathered data on the Nation's soils, land use, and conservation treatment needs; potential cropland; prime farmland; parameters for estimating water (sheet and rill) and wind erosion; and other items such as area in wetlands and existing conservation practices. The inventory did not include federally owned lands, which accounted for about one-fifth of the U.S. land area excluding Alaska.

The 1982 NRI was developed to obtain data for analysis at substate (multicounty) levels. The sample consisted of nearly 350,000 primary sampling units representing about 3.5 percent of all nonfederal land. Field workers collected data from spring 1980 until fall 1982. Data collected before 1982 were reviewed and revised, if necessary, to reflect 1982 conditions.

Sampling rates were selected to guarantee that the coefficient of variation of an estimate, or the relative standard error of an estimate, was less than 10 percent if that land use accounted for at least 10 percent of the land area within the particular Major Land Resource Area (MLRA) being inventoried. Each item estimated has a different level of precision or reliability. SCS cautions that data analysts and decisionmakers have responsibility to decide if the NRI data are sufficiently precise for their use.

Land Use in 1982

Nearly 1.5 billion acres of nonfederal land were inventoried in all States except Alaska. The proportions of land in cropland, rangeland, and forest land were about equal at the national level (fig. 1) but varied substantially among the 10 production regions and Hawaii (table 1). Cropland uses accounted for 421 million acres, while 406 million and 393 million acres were in rangeland and forest land, respectively. Another 132 million acres were in pasture which together with rangeland represented 36 percent of all land uses. Urban and builtup uses plus area in rural transportation systems totaled less than 5 percent of the land base.

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[1]Abstracted from (7). Italicized numbers in parentheses refer to items in the references.

Figure 1

Principal uses of nonfederal U.S. land, excluding Alaska, 1982

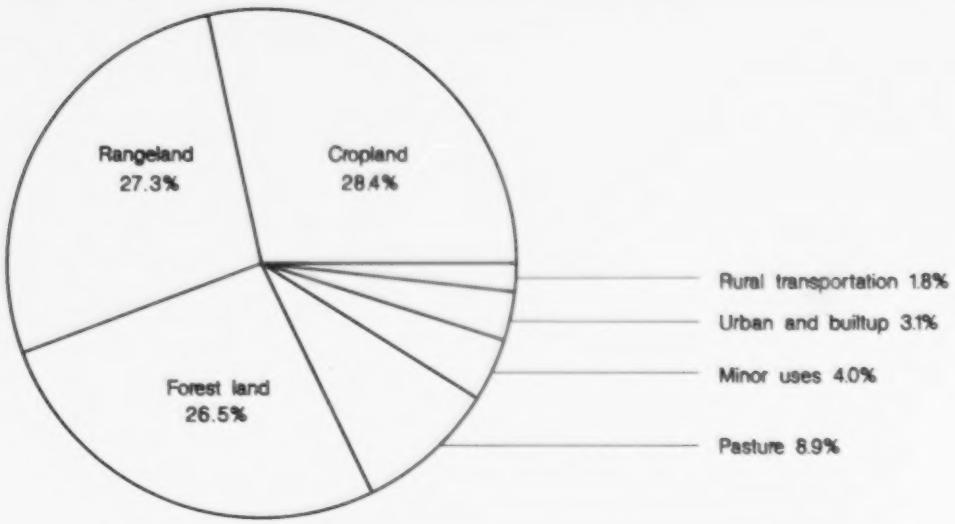


Table 1—Major uses of nonfederal land by region, 1982

Region	Crop-land	Pasture	Range-land	Forest land	Minor land cover uses	Urban and builtup	Rural trans-portation	Total[1]
	Million acres							
Northeast	17.3	8.8	0	66.6	5.2	8.1	2.1	108.1
Lake States	43.9	9.9	0.2	42.7	9.5	4.0	2.8	113.0
Corn Belt	92.4	25.2	.2	26.2	4.8	7.0	4.1	159.8
Northern Plains	93.4	8.3	73.7	2.4	4.4	1.6	3.8	187.5
Appalachia	22.7	18.5	0	62.5	3.9	4.8	2.4	114.8
Southeast	18.2	12.3	3.8	66.0	6.4	6.1	2.2	115.0
Delta States	21.9	12.1	.4	42.5	4.1	2.0	1.6	84.8
Southern Plains	44.9	24.2	110.4	15.9	2.9	5.2	3.0	206.5
Mountain	43.3	7.4	184.0	27.3	11.3	2.7	3.0	278.9
Pacific	22.7	4.7	33.2	39.8	6.3	4.8	1.9	113.3
Hawaii	.3	1.0	0	1.5	.8	.1	[3]	3.8
United States[1, 2]	421.0	132.4	405.9	393.2	59.6	46.4	26.9	1,485.3
	Percent[4]							
Northeast	4.1	6.7	[3]	16.9	8.8	17.5	7.8	7.3
Lake States	10.4	7.5	[3]	10.9	15.9	8.6	10.4	7.6
Corn Belt	21.9	19.0	[3]	6.7	8.1	15.0	15.1	10.8
Northern Plains	22.2	6.3	18.2	.6	7.3	3.4	14.1	12.6
Appalachia	5.4	14.0	[3]	15.9	6.5	10.3	9.0	7.7
Southeast	4.3	9.3	.9	16.8	10.7	13.2	8.2	7.7
Delta States	5.2	9.2	.1	10.8	7.0	4.4	6.0	5.7
Southern Plains	10.7	18.3	27.2	4.0	4.8	11.3	11.2	13.9
Mountain	10.3	5.6	45.3	6.9	18.9	5.7	11.0	18.8
Pacific	5.4	3.6	8.2	10.1	10.5	10.3	7.0	7.6
Hawaii	.1	.7	[3]	.4	1.4	.3	.1	.3
United States[1, 2]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[1]Numbers may not sum to totals due to rounding. [2]Includes all States except Alaska. [3]Fewer than 50,000 acres or less than 0.5 percent. [4]Developed from unrounded data. Source: (8).

Cropland acreage was somewhat concentrated in the Corn Belt and Northern Plains which jointly had 44 percent of all cropland but only 23 percent of all land inventoried. The Lake States, Southern Plains, and Mountain regions each had about 10 percent of all cropland. Shares in all other regions were substantially lower, ranging from 4-5 percent.

Rangeland was the predominant use in the Southern Plains, accounting for nearly 54 percent of the region's land area, and in the Mountain region, where it accounted for two-thirds of all land uses. These regions had nearly 295 million acres or over 70 percent of all the Nation's rangeland. Acreage was also significant in the Northern Plains with 74 million and the Pacific region with 33 million acres. Other regions had only minor acreages or more.

Pastureland was more evenly distributed among regions than was rangeland. Largest acreages were located in the Corn Belt, Appalachia, and the Southern Plains.

The eastern and southern regions, including the Northeast, Appalachia, Southeast, and Delta States, accounted for 60 percent of all forest land in the United States. The Lake States with 43 million acres and the Pacific region with nearly 40 million acres also had significant acreages. Forest land was least significant in the Plains regions where the combined 18.3 million acres represented less than 5 percent of the U.S. total.

Pasture, rangeland, and forest land are the principal sources of potential cropland. But only portions of the acreages are suitable for crop use. Even among those tracts with soils suitable for cropping, not all may be economically remunerative. Field size and location, land development costs, competition for nonagricultural uses, cost/price relationships over time, and other factors affect the economic potential for converting land to crop production.

Potential for Conversions to Cropland

Both physical and economic factors affect the suitability of converting grassland and forest land to crop use. Tracts with soils having low productivity, excess erosion, and drainage problems, or tracts which are small, irregularly shaped, and fragmented discourage such conversions. Economic returns to alternative uses over landowners' planning horizons are the principal criterion behind land use decisions. The physical characteristics are subject to less change over time than cost/return relationships and land conversion costs.

During the 1982 NRI, SCS and other USDA personnel developed information on both the physical and economic potential for converting land to crop use. SCS field personnel evaluated soils at sample points in the NRI and assigned the corresponding land capability classes (see glossary).

County-level committees representing several USDA agencies estimated the economic potential for converting land to crop use within the next 10-15 years. Their estimates were based on evaluations of physical characteristics of the soil; size and location of parcels; type of effort required for conversion; and commodity prices, production costs, and land conversion costs for 1981. A rating of high potential required evidence that similar land had been converted to crop use during 1979-82. Medium potential land required no such evidence.

About 800 million acres were inventoried as land classes I-IV and thus considered physically suitable for crop production (table 2). One-half, or 402 million acres, was already classified as cropland in 1982. Among the remaining 400 million acres of noncropland in land classes I-IV, 33 million acres, or 8 percent of the total, had high potential while 103 million acres, or 26 percent, had medium potential for conversion to cropland. The other 264 million acres which represented two-thirds of all nonfederal, rural land in land classes I-IV not classified as cropland had either low or no potential for cropland use.

Table 2—Cropland and potential for conversion to crop use by land capability class, 1982

Land capability classification	Cropland	Noncropland potential for crop use					Total
		High	Medium	Low	Zero	Total	
	Million acres						
I	30	2	1	2	1	6	36
II	191	17	32	41	10	100	291
III	134	11	44	80	19	154	288
I-III	355	30	77	123	30	260	615
IV	47	3	26	83	28	140	187
I-IV	402	33	103	206	58	400	802
V-VIII	19	2	15	134	440[1]	591	610
I-VIII	421	35	118	340	498	991	1,412[2]

[1]Includes 5 million acres not classified by capability.
[2]Nonfederal rural land representing all land in all States except Alaska, less urban and builtup areas and federally owned land.

Note: See glossary for land capability class explanation.

Source: (8).

Only 19 million of the 610 million acres in land classes V-VIII were inventoried as cropland. These areas tend to be portions of fields which are predominantly land classes I-IV soils. A small proportion of the land classes V-VIII soils would presumably be cropped if economic incentives were adequate.

Sources of Potential Cropland

Pasture and rangeland are more easily converted to cropland than forest land and other land uses. Slightly over half the noncropland in land classes I-III was in pasture and rangeland in 1982, with another 40 percent in forest land, and the rest in other uses (table 3). Acreage in land class IV was similarly distributed. Because land classes V-VIII soils are generally unsuited to cultivation, corresponding land uses will not be discussed.

Acreage in land classes I-III was rather evenly distributed among 6 of the 10 regions, ranging from 22 to 27 million acres (State data are in app. table 1). Land use patterns within the six regions, however, were quite different (figs. 2 and 3). Pasture and rangeland were the principal uses in the Corn Belt and Northern Plains, while forest land was most prevalent in the Northeast, Lake States, Delta States, and Appalachia (tables 3 and 4). Among the other four regions, land classes I-III acreages were substantially higher in the Southeast (33.3 million) and Southern Plains (50 million) and considerably lower in the Mountain (16.8 million) and Pacific (8.8 million) regions. Forest land was the major use in the Southeast while grassland uses predominated in the Southern Plains and Mountain regions. Acreage was more evenly divided between grassland and forest land in the Pacific region.

After considering the physical factors and economic relationships, the county committees identified 35 million acres with high potential for crop use and 117 million acres with medium potential (table 5). Acres with low and zero potential were also estimated, but are not discussed here. About three-fourths of the U.S. acreage with high potential was in pasture and rangeland in 1982, 20 percent in forest land, and the rest in other land uses. The mix of land uses for the medium potential land was slightly different in that nearly 70 percent was in pasture and rangeland, 29 percent in forest land, and 1 percent in other land uses.

The Corn Belt and Southern Plains each had about 5.5 million acres of high potential land (table 5) (State estimates are in app. tables 2 and 3). While each region had nearly 16 percent of the Nation's total, their

Figure 2
Farm production regions

Table 3—Regional distribution of land use, by land capability classification, 1982

Region	Pasture and rangeland			Forest land			Other land			Total		
	I-III	IV	V-VIII	I-III	IV	V-VIII	I-III	IV	V-VIII	I-III	IV	V-VIII
	1,000 acres											
Northeast	5,576	1,527	1,717	16,056	6,643	43,885	1,206	379	2,457	22,838	8,549	48,059
Lake States	5,320	1,872	2,903	14,647	8,381	19,680	2,074	518	6,178	22,041	10,771	28,761
Corn Belt	15,414	4,459	5,486	8,849	3,884	13,458	2,973	358	789	27,236	8,701	19,733
Northern Plains	22,738	11,083	48,259	649	114	1,595	2,001	321	1,924	25,388	11,518	51,778
Appalachia	8,619	3,510	6,348	17,240	7,765	37,458	1,285	326	1,534	27,144	11,601	45,340
Southeast	7,867	5,965	2,247	23,065	15,455	27,452	2,370	479	2,943	33,302	21,899	32,642
Delta States	8,171	1,571	2,800	17,333	5,596	19,548	655	130	3,128	26,159	7,297	25,476
Southern Plains	43,877	18,246	72,469	5,358	2,128	8,377	794	204	1,587	50,029	20,578	82,433
Mountain	16,149	23,978	151,270	194	1,180	25,934	489	329	10,192	16,832	25,487	187,396
Pacific	4,852	6,194	26,811	3,443	6,318	30,037	471	402	5,043	8,766	12,914	61,891
Hawaii	178	138	658	88	156	1,229	2	4	821	268	298	2,708
United States[1]	138,761	78,543	320,968	106,922	57,620	228,653	14,320	3,450	36,596	260,003	139,613	586,217

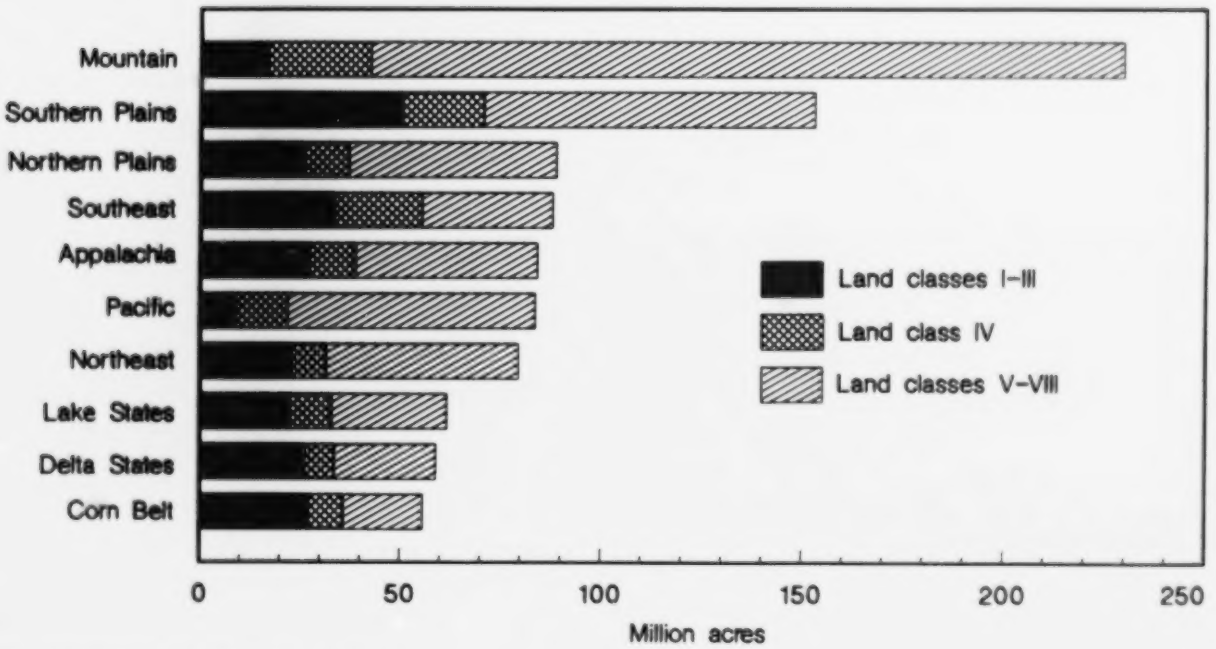
[1]Includes all States except Alaska.

Note: See glossary for land capability class explanation.

Source: (8).

Figure 5

Regional distribution of all pasture, rangeland, forest land, and other land by LCC class, 1982



Note: Hawaii's acreage was too insignificant to plot.

Table 4—Regional shares of pasture and rangeland, forest land, and other land uses by land capability classification, 1982

Region	Pasture and rangeland			Forest land			Other land			Total		
	I-III	IV	V-VIII	I-III	IV	V-VIII	I-III	IV	V-VIII	I-III	IV	V-VIII
	Percent											
Northeast	4.0	1.9	0.5	15.0	11.5	19.2	8.4	11.0	6.7	8.8	6.1	8.2
Lake States	3.8	2.4	.9	13.7	14.5	8.6	14.5	15.0	16.9	8.5	7.7	4.9
Corn Belt	11.1	5.7	1.7	8.3	6.7	5.9	20.8	10.4	2.2	10.5	6.2	3.4
Northern Plains	16.4	14.1	15.0	.6	.2	.7	14.0	9.3	5.3	9.8	8.3	8.8
Appalachia	6.2	4.5	2.0	16.1	13.5	16.4	9.0	9.4	4.2	10.4	8.3	7.7
Southeast	5.7	7.6	.7	21.6	26.8	12.0	16.6	13.9	8.0	12.8	15.7	5.6
Delta States	5.9	2.0	.9	16.2	9.7	8.5	4.6	3.8	8.5	10.1	5.2	4.3
Southern Plains	31.6	23.2	22.6	5.0	3.7	3.7	5.5	5.9	4.3	19.2	14.7	14.1
Mountain	11.6	30.5	47.1	.2	2.0	11.3	3.4	9.5	27.9	6.5	18.3	32.0
Pacific	3.5	7.9	8.4	3.2	11.0	13.1	3.3	11.7	13.8	3.4	9.2	10.6
Hawaii	.1	.2	.2	.1	.3	.5	[1]	.1	2.2	.1	.2	.5
United States[2]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[1]Less than 0.5 percent.
[2]Includes all States except Alaska. Percentages may not sum to totals due to rounding.

Note: See glossary for land capability class explanation.

Source: (8).

Table 5—Regional acreage with high and medium potential for conversion to cropland, 1982

Region	Pasture and rangeland			Forest land			Other land			Total		Total
	High	Medium	Total	High	Medium	Total	High	Medium	Total	High	Medium	
	1,000 acres											
Northeast	922	2,773	3,695	545	3,352	3,897	99	208	307	1,566	6,333	7,899
Lake States	1,667	2,817	4,484	841	4,791	5,632	144	456	600	2,652	8,064	10,716
Corn Belt	4,477	8,398	12,875	938	3,324	4,262	186	554	740	5,601	12,276	17,877
Northern Plains	4,550	15,847	20,397	54	216	270	146	375	521	4,750	16,438	21,188
Appalachia	2,631	5,137	7,768	2,005	8,325	10,330	96	323	419	4,732	13,785	18,517
Southeast	1,987	5,541	7,528	1,576	6,817	8,393	88	207	295	3,651	12,565	16,216
Delta States	1,518	3,637	5,155	1,042	4,046	5,087	41	75	116	2,601	7,758	10,359
Southern Plains	5,340	20,587	25,927	78	814	892	41	156	197	5,459	21,557	27,016
Mountain	2,767	12,559	15,326	28	213	241	87	156	243	2,882	12,928	15,810
Pacific	1,165	3,715	4,880	144	1,837	1,981	25	110	135	1,334	5,662	6,996
Hawaii	29	58	88	12	24	37	2	0	2	43	82	125
United States[1]	27,053	81,069	108,122	7,263	33,759	41,022	955	2,620	3,575	35,271	117,448	152,719

[1]Includes all States except Alaska. Acres may not sum to totals due to rounding.

Source: (8).

respective shares of land classes I-III land were 10 and 19 percent (tables 4 and 6). Nearly 80 percent of the Corn Belt's and 98 percent of the Southern Plains' high potential land was in pasture in 1982. The Northern Plains and Appalachia each had 13 percent, and the Southeast had 10 percent of all high potential land (table 6). Percentage shares in other regions were 8 percent or less.

Most regional percentage distributions of medium potential land are generally comparable to those for high potential land. Regional shares of medium potential land are especially lower in the Corn Belt and Appalachia but somewhat higher in the Southern Plains and the Mountain region.

If the high potential land were converted to crop use, cropland acreage would increase to 456 million acres, 8 percent above the 421 million inventoried in 1982 (table 7, fig. 4). Conversion of both high and medium potential land would expand the cropland base by more than one-third.

Regional shares of cropland would change only slightly if land with high potential for conversion to cropland was added to cropland inventoried in 1982 (table 7). A slight shift away from the Lake States, Corn Belt, Northern Plains, Mountain, and Pacific regions to eastern and southern regions would occur. This shift is more pronounced if both high and medium lands were converted. The Corn Belt and Northern Plains would experience the largest reductions with 2.7 and 2.2 percentage points. Gainers would include Appalachia, the Southeast, and the Southern Plains with about a 1.8 percentage point increase. Regions to the east and south of the Corn Belt would account for an overall increase of 6 percentage points in their share of the U.S. total.

Factors Affecting Conversion Potential

Why hasn't land with high potential for conversion to crop use already been converted? Several economic, personal, and physical factors can impede such conversions. County committees pulled together information on some of these factors when evaluating potential cropland.

Economic and Personal Factors. Commodity prices, production costs, and land development costs in 1981 were used to assess economic potential for conver-

Figure 4

Cropland and potential cropland by region, 1982

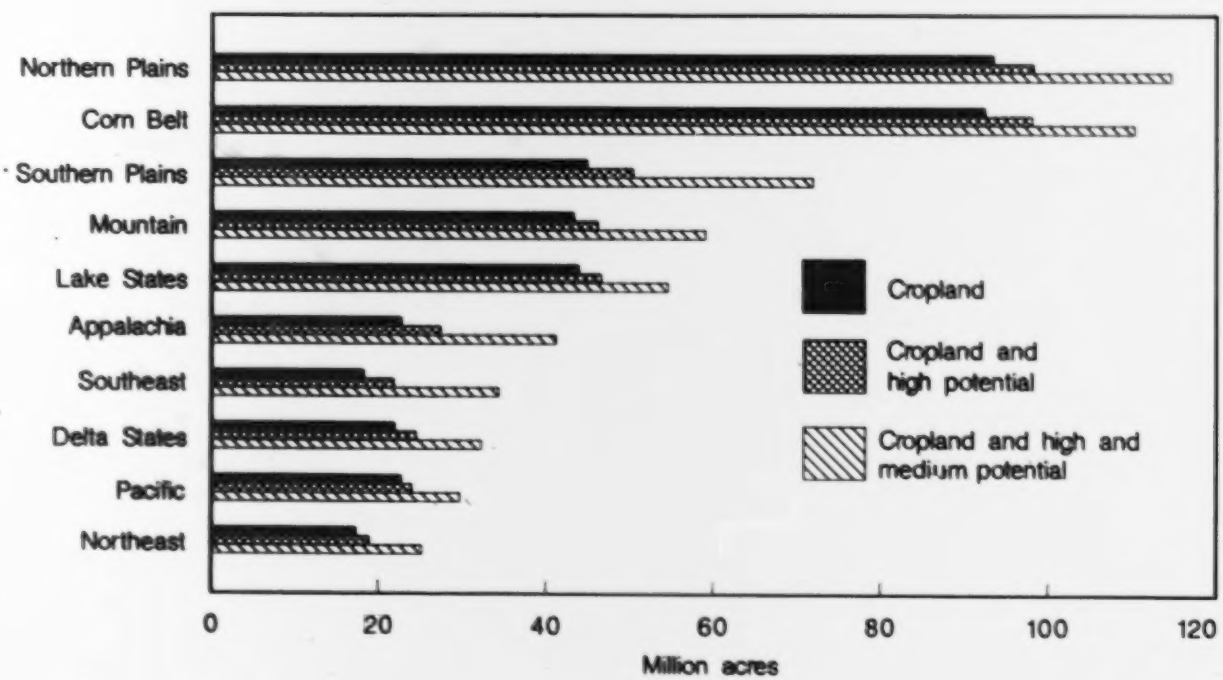


Table 6—Regional shares of land with high and medium potential for conversion to cropland, 1982

Region	Pasture and rangeland		Forest land		Other land		Total		Total
	High	Medium	High	Medium	High	Medium	High	Medium	
					Percent				
Northeast	3.4	3.4	7.5	9.9	10.3	7.9	4.4	5.4	5.2
Lake States	6.2	3.5	11.6	14.2	15.1	17.4	7.5	6.9	7.0
Corn Belt	16.6	10.3	12.9	9.8	19.5	21.2	15.9	10.5	11.7
Northern Plains	16.8	19.5	.7	.6	15.3	14.3	13.5	14.0	13.9
Appalachia	9.7	6.3	27.6	24.7	10.0	12.3	13.4	11.7	12.1
Southeast	7.4	6.8	21.7	20.2	9.2	7.9	10.4	10.7	10.6
Delta States	5.6	4.5	14.3	12.0	4.3	2.9	7.4	6.6	6.8
Southern Plains	19.7	25.3	1.1	2.4	4.3	6.0	15.5	18.4	17.7
Mountain	10.2	15.5	.4	.6	9.1	5.9	8.2	11.0	10.4
Pacific	4.3	4.6	2.0	5.4	2.6	4.2	3.8	4.8	4.6
Hawaii	.1	.1	.2	.1	.3	[1]	.1	.1	.1
United States[2]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[1]Less than 0.5 percent.
[2]Includes all States except Alaska. Percentages may not sum to totals due to rounding.

Source: (8).

Table 7—Regional acreage and percentage shares of cropland, plus land with high and medium potential for conversion, 1982

Region	Cropland		Cropland plus high potential land		Cropland plus high and medium potential land		Percentage increase with potential cropland		
							High	Medium	High and medium
	Million acres	*Percent*	*Million acres*	*Percent*	*Million acres*	*Percent*			
Northeast	17.3	4.1	18.9	4.1	25.2	4.4	9.0	36.6	45.7
Lake States	43.9	10.4	46.6	10.2	54.6	9.5	6.0	18.4	24.4
Corn Belt	92.4	21.9	98.0	21.5	110.3	19.2	6.0	13.3	19.4
Northern Plains	93.4	22.2	98.2	21.5	114.6	20.0	5.1	17.6	22.7
Appalachia	22.7	5.4	27.4	6.0	41.2	7.2	20.8	60.7	81.6
Southeast	18.2	4.3	21.8	4.8	34.4	6.0	20.1	69.0	89.1
Delta States	21.9	5.2	24.5	5.4	32.3	5.6	11.9	35.4	47.3
Southern Plains	44.9	10.7	50.4	11.0	71.9	12.5	12.2	48.0	60.2
Mountain	43.3	10.3	46.2	10.1	59.1	10.3	6.7	29.8	36.5
Pacific	22.7	5.4	24.0	5.3	29.7	5.2	5.9	24.9	30.8
Hawaii	.3	.1	.3	.1	.4	.1	14.3	27.3	41.7
United States[1]	421.0	100.0	456.3	100.0	573.7	100.0	8.4	27.9	36.3

[1]Includes all States except Alaska.

Source: (8).

sion. As these prices and costs change, evaluations of potential for conversion would likely vary. Analyses of land conversions discounted over some planning horizon would have been useful to county committees when they initially evaluated the economic potential for conversion. The committees, however, did not have such detailed information.

National indices of prices received for crops and prices paid for production expenses increased from 1977 through 1981, but the percentage increase was substantially higher for prices paid (fig. 5). Prices received for livestock increased through 1979, then declined slightly by 1981. These are only gross indicators of some economic incentives for converting land to crop use. Length of planning horizons likely affects landowners' decisions to invest or disinvest in land. For example, land close to urbanizing areas might be highly convertible to cropland, but any investments in clearing and development may not be recoverable if the landowner expects to sell in the foreseeable future. Landowners may also not have cash reserves or access to capital to cover land development costs.

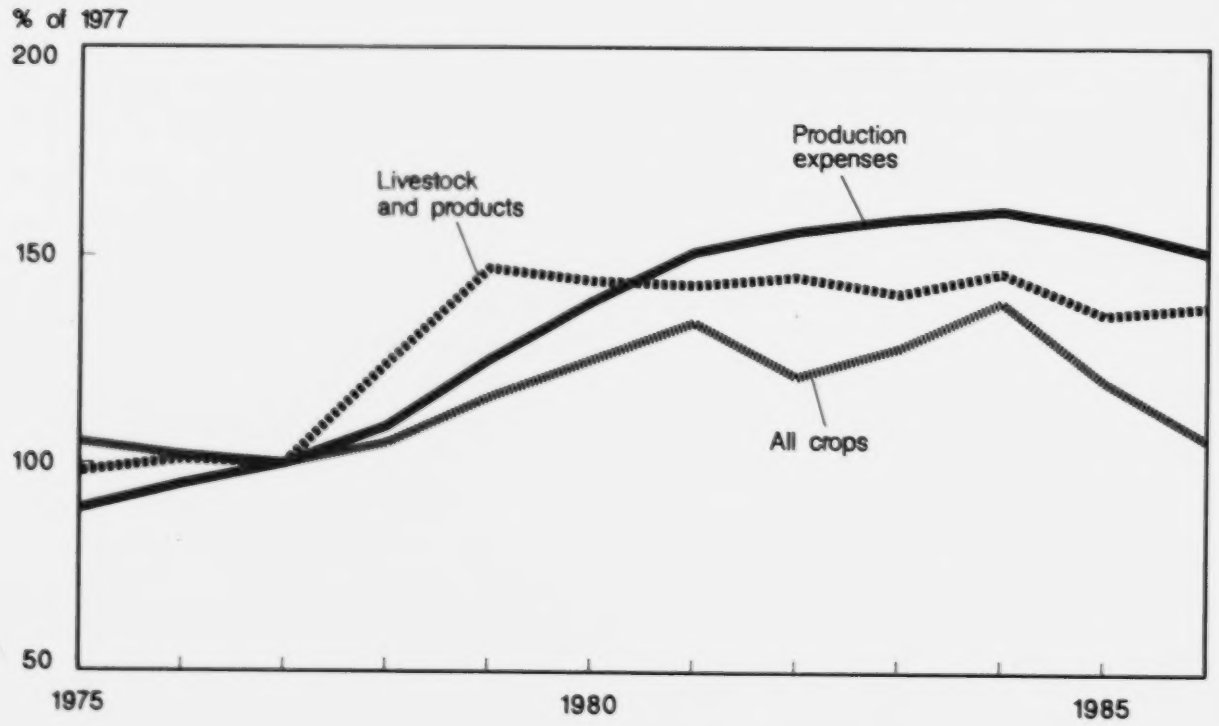
The more individuals involved in land-use arrangements, the more likely difficulties arise in making land-use decisions, including land conversions. About two-thirds of all farm operators leased a portion of land they operated in 1982 (*11*). The percentage of farmers involved in leasing arrangements has increased in recent years.

A growing proportion of farmers are employed off the farm. About half of all U.S. farmers reported some off-farm employment in 1982 (*11*). Over one-third worked at least 200 days in off-farm jobs. Off-farm income can be used for production expenses and land development costs. On the other hand, off-farm employment may also result in farmers having less time for and interest in using land more intensively.

Physical Factors. SCS field personnel identified several physical factors which could impede conversions. One group of limitations included excessive erosion, problems with water availability or management, and length of growing season. These factors were limitations on about 25 percent of the U.S. acreage with high potential and 45 percent of the medium potential land. Excessive soil erosion was a limitation on only 7 percent of the high but nearly 20 percent of the medium potential land. Availability of irrigation water and/or problems with drainage or flooding were limitations on

Figure 5

Indices of prices received and paid by farmers



10 percent of the high and 15 percent of the medium potential land. Other limiting factors occurring infrequently included short growing seasons, soils with restrictive root zones, and soils with very low fertility.

Committees evaluating potential for conversion also had information on tract size and location, indications that land was being held for urban or related development, and indications that landowners would probably continue to keep land in longer term uses such as forestry, rangeland, wildlife refuges, and recreation areas over the next 10-15 years. Any of these factors were limitations on only 30 percent of the high and 45 percent of the medium potential land.

Longer term uses of land were limitations on 28 percent of the high potential and 37 percent of the medium potential land, particularly affecting the Delta States, Southeast, and Pacific regions, which have sizable acreages of forest land and the Northern Plains and Mountain regions, which have large acreages of rangeland.

Less then 1 percent of all land with high and medium potential was being held for urban or related development. This factor was most prevalent in the Northeast and the Corn Belt where 7 and 3 percent of the potential land was affected. This factor was a limitation on less than 1 percent of the potential cropland in all other regions.

Small and/or isolated tracts were limiting factors on 8-10 percent of the potential cropland in the Northeast, Mountain, and Pacific regions and about 6 percent of the land in Appalachia, the Corn Belt, Lake States, and Northern Plains. The Delta States and Southeast, the least affected, had only 3 percent of the potential cropland limited by these factors.

Types of Effort Needed for Conversion

SCS field personnel specified four levels of effort that landowners could encounter when converting land to crop use. When land was already suitable for cropping, farmers simply had to begin tillage (specified as "none," table 8). Other land was identified as requiring an onfarm effort by the landowner such as land clearing, drainage, or erosion control. A multiple farm cooperative effort by several landowners would be necessary for installing land treatment systems in some areas. The most complicated effort would be a project action possibly involving the U.S. Army Corps of Engineers, Bureau of Reclamation, State and county government, or other organizations. A fifth category, not applicable, was assigned to land not suitable for cropland use. This grouping included urban and builtup areas, rural transportation systems, and class VII and VIII land.

About 37 percent of the high potential land was already considered suitable for tillage (table 8). Nearly all was grassland in 1982. Just over 60 percent of this already suitable land would require some onfarm preparation before cropping. A relatively small acreage, 527,000 acres representing only 1.5 percent of the land with high potential, would require multiple farm or project action.

Corn Belt landowners could immediately till nearly half the region's high potential land (table 9). Immediate tillage would be least likely in the Delta States, on 26 percent of the region's high potential land, and in the Northeast, on 28 percent. About 70 percent of the land in both regions would require onfarm preparation, presumably land clearing and improved drainage, particularly in the Delta States. Multiple farm and project activities would be needed most often in Mountain and Pacific regions, and especially in Hawaii.

A somewhat different mix of efforts would be required for cultivating medium potential land. Farmers could begin tillage on only 18 percent of the acreage without some prior land treatment, while an onfarm measure would be necessary on about 75 percent of the land (table 10). Nearly all land immediately tillable was in

Table 8—Type of effort required for converting high potential land to crop use by land use, 1982

Type of effort	Land use				Total
	Pasture	Rangeland	Forest land	Other land	
	1,000 acres				
None	9,554	2,924	188	257	12,923
Onfarm	8,578	5,648	6,806	657	21,688
Multiple farm	92	97	117	17	323
Project	36	83	76	9	204
Not applicable	29	12	76	16	133
United States[1]	18,289	8,764	7,263	956	35,272
	Percent				
None	52.2	33.4	2.6	26.9	36.6
Onfarm	46.9	64.4	93.7	68.7	61.5
Multiple farm	.5	1.1	1.6	1.8	.9
Project	.2	.9	1.1	1.0	.6
Not applicable	.2	.1	1.0	1.7	.4
United States[1]	100.0	100.0	100.0	100.0	100.0

[1]Includes all States except Alaska. Numbers may not sum to totals due to rounding.

Source: (8).

Table 9—Type of effort required for converting high potential land to crop use by region, 1982

Region	Type of effort					Total[1]
	None	Onfarm	Multiple farm	Project action	Not applicable	
	1,000 acres					
Northeast	436	1,088	19	5	18	1,566
Lake States	844	1,769	37	0	3	2,653
Corn Belt	2,745	2,797	23	23	13	5,601
Northern Plains	2,049	2,675	8	3	14	4,749
Appalachia	1,769	2,879	54	8	22	4,732
Southeast	1,045	2,563	20	18	5	3,651
Delta States	662	1,867	18	45	8	2,600
Southern Plains	1,821	3,572	18	44	5	5,460
Mountain	1,095	1,659	67	55	5	2,881
Pacific	446	798	50	3	38	1,335
Hawaii	11	21	9	0	2	43
United States[2]	12,923	21,688	323	204	133	35,271
	Percent					
Northeast	27.8	69.5	1.2	0.3	1.1	100.0
Lake States	31.8	66.7	1.4	[3]	.1	100.0
Corn Belt	49.0	49.9	.4	.4	.2	100.0
Northern Plains	43.1	56.3	.2	.1	.3	100.0
Appalachia	37.4	60.8	1.1	.2	.5	100.0
Southeast	28.6	70.2	.5	.5	.1	100.0
Delta States	25.5	71.8	.7	1.7	.3	100.0
Southern Plains	33.4	65.4	.3	.8	.1	100.0
Mountain	38.0	57.6	2.3	1.9	.2	100.0
Pacific	33.4	59.8	3.7	.2	2.8	100.0
Hawaii	25.6	48.8	20.9	[3]	4.7	100.0
United States[2]	36.6	61.5	.9	.6	.4	100.0

[1]Numbers may not sum to totals due to rounding.
[2]Includes all States except Alaska.
[3]Less than 0.5 percent.

Source: (*8*).

Table 10—Type of effort required for converting medium potential land to crop use by land use, 1982

Type of effort	Land use				Total	Type of effort	Land use				Total
	Pasture	Rangeland	Forest land	Other land			Pasture	Rangeland	Forest land	Other land	
	1,000 acres						*Percent*				
None	13,599	7,105	541	269	21,515	None	33.0	17.8	1.6	10.2	18.3
Onfarm	26,536	30,876	31,185	2,129	90,725	Onfarm	64.5	77.2	92.4	81.3	77.2
Multiple farm	382	348	685	126	1,541	Multiple farm	.9	.9	2.0	4.8	1.3
Project action	383	1,211	640	58	2,292	Project action	.9	3.0	1.9	2.2	2.0
Not applicable	158	474	708	39	1,378	Not applicable	.4	1.2	2.1	1.5	1.2
United States[1]	41,158	40,014	33,759	2,620	117,451	United States[1]	100.0	100.0	100.0	100.0	100.0

[1]Includes all States except Alaska. Numbers may not sum to totals due to rounding.

Source: (*8*).

grassland in 1982 while about two-thirds of the land requiring some onfarm effort was in grassland and about one-third in forest land. Just over 3 percent of land with medium potential would require multiple farm or project action.

About 25 percent of the medium potential land in the Corn Belt and Northern Plains could be cultivated without prior land treatment (table 11). This is substantially higher than the 11-12 percent in the Lake States, Southeast, and Pacific regions. Over two-thirds of the land in all regions would require onfarm treatment. This requirement ranged from 69 percent in the Mountain region to 86 percent in the Southeast. Multiple farm and project action on medium potential land would be needed most frequently in the Lake States, Mountain, and Pacific regions.

Estimated Increase in Soil Erosion

Erosion rates on pasture, rangeland, and forest land within any land capability class are low compared with rates for cropland. Conversion to cropland increases levels of erosion and sedimentation. In many situations, conservation practices would be needed to control erosion. If high and medium potential lands were converted to crop use, how much might erosion increase over the 1982 level?

Gross estimates of changes in erosion levels were developed by determining the difference in average erosion rates for the inventoried land use and for cropland within each region, and then multiplying the

Table 11—Type of effort required for converting medium potential land to crop use by region, 1982

Region	Type of effort					Total[1]
	None	Onfarm	Multiple farm	Project action	Not applicable	
	1,000 acres					
Northeast	871	5,198	149	54	61	6,333
Lake States	871	6,726	295	84	89	8,065
Corn Belt	3,221	8,806	111	93	47	12,278
Northern Plains	4,370	11,747	155	64	101	16,437
Appalachia	2,275	10,927	294	115	175	13,786
Southeast	1,557	10,817	100	74	18	12,566
Delta States	1,367	6,002	84	273	31	7,757
Southern Plains	3,718	17,436	104	169	132	21,559
Mountain	2,596	8,865	179	1,060	227	12,927
Pacific	667	4,163	61	274	496	5,661
Hawaii	2	38	9	32	1	82
United States[1, 2]	21,515	90,725	1,541	2,292	1,378	117,451
	Percent					
Northeast	13.8	82.1	2.4	0.9	1.0	100.0
Lake States	10.8	83.4	3.7	1.0	1.1	100.0
Corn Belt	26.2	71.7	.9	.8	.4	100.0
Northern Plains	26.6	71.5	.9	.4	.6	100.0
Appalachia	16.5	79.3	2.1	.8	1.3	100.0
Southeast	12.4	86.1	.8	.6	.1	100.0
Delta States	17.6	77.4	1.1	3.5	.4	100.0
Southern Plains	17.2	80.9	.5	.8	.6	100.0
Mountain	20.1	68.6	1.4	8.2	1.8	100.0
Pacific	11.8	73.5	1.1	4.8	8.8	100.0
Hawaii	2.4	46.3	11.0	39.0	1.2	100.0
United States[1, 2]	18.3	77.2	1.3	2.0	1.2	100.0

[1]Numbers may not sum to totals due to rounding.
[2]Includes all States except Alaska.

Source: (*8*).

increase in erosion rates by the acres of potential cropland. In the Northeast, for example, erosion averaged 0.3 tons/acre/year on pasture and 3.8 tons/acre/year on cropland. If an acre of pasture were converted to cropland, the erosion rate is assumed to increase by 3.5 tons/acre/year. We further assumed that cropping patterns, tillage practices, and conservation measures on the land converted to crop use would be similar to those reported for cropland on land classes I-IV soils in 1982.

Erosion rates on land classes I-IV soils, the land most likely to be converted to cropland, were highest in the Corn Belt, Southern Plains, and Mountain region, averaging about 7-8 tons/acre/year (table 12). Together, these three regions had nearly 40 percent of all high and medium potential cropland. The Northern Plains, Appalachia, and the Southeast also had sizable acreages of potential cropland but with substantially lower erosion rates, ranging from 2.9 to 4.4 tons/acre/year.

Soil erosion nationwide could increase by 1.03 billion tons annually and 19 percent above the 1982 level if land with high and medium potential were converted to cropland (table 13). If only high potential lands were converted, annual erosion could increase by about 4 percent.

Because high potential land is most likely to be converted, our discussion of regional increases in erosion is confined to this acreage. The largest increase in erosion—64 million tons annually and 7 percent above the 1982 level—was estimated for the Southern Plains (table 13). Erosion rates on grassland and forest land in this region ranged from only 0.5 to 0.8 tons/acre/year, but the rate on cropland was very high, averaging 12.4 tons/acre/year. Annual erosion could increase nearly 40 million tons in the Corn Belt, about 4 percent higher than in 1982. Appalachia, the Southeast, and the Delta States could experience the highest percentage increases, ranging from 8 to 11 percent. These three regions would account for about 25 percent of the increased U.S. erosion. The Northeast and Pacific regions would be least affected because of low per-acre erosion rates and relatively minor high potential acreages.

Converting grassland and forest land to crop use would increase the need for soil conservation practices and the costs of erosion control. Also, because some erosion control practices already in place on potential cropland would be destroyed following conversion, and because average cropland erosion rates reflect the erosion control practices already in place, needs for erosion control based on estimated erosion increases in table 13 are understated. Nearly half the existing cropland in the 1982 NRI needed erosion control practices.

Table 12—Estimated total erosion and average erosion rates on classes I-IV land by region, 1982

Region	Total erosion[1, 2]	Average erosion rates on classes I-IV land[1]					
		Cropland	Pasture	Rangeland	Forest land	Other land	All land
	Million tons	*Tons/acre/year*					
Northeast	139.8	3.8	0.3	[3]	0.2	7.3	2.8
Lake States	275.4	5.7	.3	0.2	.1	2.1	4.7
Corn Belt	945.7	7.9	1.0	1.0	.5	4.1	6.8
Northern Plains	752.1	5.3	.6	.4	.2	1.6	4.4
Appalachia	383.5	7.1	.7	[3]	.2	2.7	4.1
Southeast	175.0	5.3	.3	.1	.1	1.5	2.9
Delta States	169.3	5.3	.4	.2	.1	1.7	3.7
Southern Plains	886.2	12.4	.5	.8	.5	1.7	8.0
Mountain	1,115.6	8.4	.4	1.0	.3	3.1	6.7
Pacific	563.9	4.1	.4	.5	.3	.7	3.4
Hawaii	14.9	4.2	1.8	[3]	.7	[3]	3.5
United States[4]	5,421.4	7.0	.6	.7	.2	2.9	5.3

[1]Sheet and rill erosion plus wind erosion based on cropping practices, management practices, and resource conditions over a 4-year period and on long-term average climatic conditions.
[2]Erosion on all classes I-VIII nonfederal land.
[3]No acres or erosion rate less than 0.05 tons/acre/year.
[4]Includes all States except Alaska.

Source: (*8*).

Comparisons With the 1977 NRI

Estimates of potential cropland were also developed in the SCS 1977 NRI. Earlier resource inventories in 1957 and 1967, termed Conservation Needs Inventories (CNIs), did not evaluate potential cropland. Because of different sampling densities, results of the 1977 and 1982 NRIs are not strictly comparable (*7*). SCS also determined that the 1977 estimates of urban and builtup uses were too high, and in turn, estimates of all land uses need to be revised (*3, 7*).

Land initially inventoried as urban and builtup in 1977 might later be reclassified as pasture or forest land after SCS revises the 1977 data. We assumed such land would have had only low or zero potential for cropland because of its proximity to urban areas. Thus, we compare the acreage of high and medium potential cropland as originally developed in the 1977 NRI with the 1982 evaluations. County committees used cost/price relationships in 1976 (when these relationships were more favorable) and in 1981 when evaluating the 1977 and 1982 NRIs (fig. 5). Instructions to county committees evaluating potential cropland were essentially the same for both NRIs.

High potential acreage totaled 35.3 million acres in 1982, only 2 percent below the 36.1 million acres inventoried in 1977, but the regional distributions of acreage differed (table 14). The Northeast, Lake States, Corn Belt, Appalachia, and Southern Plains each accounted for larger shares of the U.S. acreage in 1982

Table 13—Estimated annual increase in soil erosion with conversion of high and medium potential land to crop use, 1982

Item	High potential	Medium potential	Total
	Million tons[1]		
Northeast	4.8	21.0	25.8
Lake States	14.2	43.7	57.9
Corn Belt	38.5	84.7	123.2
Northern Plains	22.8	79.5	102.3
Appalachia	31.1	91.7	122.8
Southeast	18.5	64.1	82.6
Delta States	13.0	39.1	52.1
Southern Plains	64.0	252.2	316.2
Mountain	21.7	96.8	118.5
Pacific	4.9	20.9	25.8
Hawaii	.1	.2	.3
United States[2]	233.6	793.9	1,027.5
	Percent		
Increase over 1982:			
Northeast	3.4	15.0	18.5
Lake States	5.2	15.9	21.0
Corn Belt	4.1	9.0	13.0
Northern Plains	3.0	10.6	13.6
Appalachia	8.1	23.9	32.0
Southeast	10.6	36.6	47.2
Delta States	7.7	23.1	30.8
Southern Plains	7.2	28.5	35.7
Mountain	1.9	8.7	10.6
Pacific	.9	3.7	4.6
Hawaii	.7	1.3	2.0
United States[2]	4.3	14.6	19.0

[1]Sheet and rill erosion plus wind erosion on classes I-IV land.
[2]Includes all States except Alaska.

Source: (*8*).

Table 14—Acreage with high and medium potential for crop use by region, 1977 and 1982

Region	High potential		Medium potential	
	1982	1977	1982	1977
	1,000 acres			
Northeast	1,566	1,079	6,333	4,213
Lake States	2,652	2,287	8,064	6,295
Corn Belt	5,601	4,840	12,276	9,670
Northern Plains	4,750	5,050	16,438	12,845
Appalachia	4,732	4,738	13,785	9,806
Southeast	3,651	4,930	12,565	10,922
Delta States	2,601	3,092	7,758	6,989
Southern Plains	5,459	5,217	21,557	14,846
Mountain	2,882	3,234	12,928	11,056
Pacific	1,334	1,631	5,662	3,920
Hawaii	43	39	82	62
United States[1]	35,271	36,137	117,448	90,624
	Percent			
Share of U.S. total:				
Northeast	4.4	3.0	5.4	4.6
Lake States	7.5	6.3	6.9	6.9
Corn Belt	15.9	13.4	10.5	10.7
Northern Plains	13.5	14.0	14.0	14.2
Appalachia	13.4	13.1	11.7	10.8
Southeast	10.4	13.6	10.7	12.1
Delta States	7.4	8.6	6.6	7.7
Southern Plains	15.5	14.4	18.4	16.4
Mountain	8.2	8.9	11.0	12.2
Pacific	3.8	4.5	4.8	4.3
Hawaii	.1	.1	.1	.1
United States[1]	100.0	100.0	100.0	100.0

[1]Includes all States except Alaska. Numbers may not sum to totals due to rounding.

Source: (*8, 9*).

than in 1977. The percentage share was notably higher in the Corn Belt, increasing from 13.4 in 1977 to nearly 16 percent in 1982. Percentage shares were lower for the other regions, especially the Southeast and Delta States.

The number of acres identified in 1982 as having medium potential for crop use was nearly 30 percent higher than the 90.6 million acres identified in 1977. The 1982 acreage estimates were higher for all regions, but percentage shares for the Northeast, Appalachia, Southern Plains, and Pacific regions were larger in 1982 than in 1977. Largest percentage declines occurred in the Southeast, Delta States, and Mountain regions.

Changes Since the 1982 Evaluations

Economic conditions and Federal farm programs have changed since 1982. Cost/price relationships have become less favorable, thereby making farming and land conversions to crop use less profitable. Many farm families face financial stress with their current operations. Because land-use conversions generally involve planning horizons of several years, economic uncertainty complicates such planning.

Several provisions in the Food Security Act of 1985 discourage landowners from converting land to crop use. Target prices for 1986-90 will be at their highest levels in 1986 but will be about 10 percent lower by 1990 (*1*). (Minimum target prices for commodities in Federal farm programs had increased rather steadily through 1984 but leveled off in 1985.) Commodity loan rates for most commodities increased steadily through 1983 but tapered off in 1984. Loan rates for 1986 were below 1985 levels. Beginning in 1987, rates are tied to an average of past market prices, thereby linking them to fluctuating markets. But loan rates may not be lowered by more than 5 percent from the basic rate in the previous year. The Secretary of Agriculture also has more discretion to lower loan rates than was provided in the 1981 legislation.

By 1990, landowners could contract to place up to 45 million acres of highly erodible cropland in a conservation reserve for 10 years. Farmers could quickly bring most of this former cropland back into production. However, about 5 million acres are targeted for tree plantings. Cropland could also be idled through annual acreage reduction programs for individual commodities.

Owners converting land to cropland to offset acreage idled in the conservation reserve or annual commodity programs, returning land to cultivation after 10 years in the reserve, or converting for other reasons would be ineligible for certain program benefits on all land they operate if the new cropland were designated highly erodible and approved soil conservation practices had not been implemented. Similarly, those converting wetlands to crop use would lose their eligibility for all program benefits. The new "uniform acreage base" concept could also limit cropland conversions. Beginning in 1987 (optional for 1986), the sum of crop acreage bases (wheat, feed grains, Upland cotton, and rice), soybean acreage, and normal idle acreage must equal the farm acreage base. In subsequent years, a landowner can increase the acreage base for one crop up to 10 percent only if one or more other cropland bases are reduced by an equivalent amount. The Secretary of Agriculture may suspend this limitation if certain market conditions prevail. The 1985 legislation has already been amended three times. The prospect of additional amendments increases landowners' uncertainty in planning land-use conversions.

Changes in the Tax Reform Act of 1986 will also discourage conversions to crop use (*4*). The investment tax credit has been eliminated, and the capital gains exclusion has been repealed. Sixty percent of the long-term capital gains realized by converting relatively low-valued grassland to higher valued cropland, for example, was previously excluded from taxable income. Such gains will now be taxed as ordinary income. Land-clearing expenses can no longer be deducted from current income. Instead, expenditures must be added to the basis of the land and recovered only when the land is sold. Expenditures for general earth moving, drainage, or filling of wetlands, or the costs of preparing land for installation of a center pivot irrigation system, will no longer be deductible as soil and water conservation costs.

References

1. Glaser, Lewrene K. *Provisions of the Food Security Act of 1985*. AIB-498. U.S. Dept. Agr., Econ. Res. Serv., Apr. 1986.

2. Klingebiel, A.A. and P.H. Montgomery. *Land-Capability Classification*. AH-210. U.S. Dept. Agr., Soil Cons. Serv., Sept. 1961.

3. Lee, Linda K. "Urban and Built-up SCS Data—An Historical Perspective." Presented at Land Retention in the Southeast Workshop, Knoxville, TN, Mar. 1984.

4. U.S. Department of Agriculture, Economic Research Service. *Agricultural Outlook*. AO-125. Nov. 1986.

5. _____, National Agricultural Statistics Service. *Agricultural Prices. 1985 Summary*. Pr 1-3(86). June 1986.

6. _____, Soil Conservation Service. *Land Resource Regions and Major Land Resources Areas of the United States*. AH-296. Rev. Dec. 1981.

7. _____. "National Resources Inventory. A Guide for Users of NRI Data Files." Unpublished. Oct. 1984.

8. _____. "1982 National Resources Inventory." Unpublished tables and data files. July 1984.

9. _____. *1977 National Resources Inventory*.

10. _____. "SCS-Multiresource Inventory, 1981-82." Unpublished. May 1980.

11 U.S. Department of Commerce, Bureau of the Census. *1982 Census of Agriculture: United States. Summary and States Data*. Vol. 1, Part 51. Oct. 1984.

Appendix table 1—Acres in pasture and rangeland, forest land, and other land uses by land capability classification, State, and region, 1982

State and region	Pasture and rangeland			Forest land			Other land			Total		
	I-III	IV	V-VIII	I-III	IV	V-VIII	I-III	IV	V-VIII	I-III	IV	V-VIII
	1,000 acres											
Northeast	5,576	1,527	1,717	16,056	6,643	43,885	1,206	379	2,457	22,838	8,549	48,059
Maine	373	114	82	2,350	1,404	12,016	168	75	408	2,891	1,593	13,506
New Hampshire	70	13	42	474	312	3,299	37	16	142	581	341	3,483
Vermont	226	94	180	480	366	3,241	36	5	39	742	465	3,460
Massachusetts	109	15	78	388	108	2,474	49	13	243	546	136	2,795
Rhode Island	21	3	12	74	28	304	3	6	23	98	37	339
Connecticut	53	12	50	234	70	1,524	48	20	73	335	102	1,647
New York	2,623	624	625	5,664	2,325	8,528	272	77	375	8,559	3,026	9,528
New Jersey	169	28	43	749	245	854	93	4	290	1,011	277	1,187
Pennsylvania	1,576	533	483	4,187	1,510	9,603	401	149	503	6,164	2,192	10,589
Delaware	29	4	2	296	18	33	16	4	102	341	26	137
Maryland	327	87	120	1,160	257	1,009	83	10	259	1,570	354	1,388
Lake States	5,320	1,872	2,903	14,647	8,381	19,680	2,074	518	6,178	22,041	10,771	28,761
Michigan	1,742	521	649	4,869	2,671	7,820	715	159	1,293	7,326	3,351	9,762
Wisconsin	1,497	670	1,227	4,300	2,745	6,347	451	137	1,850	6,248	3,552	9,424
Minnesota	2,081	681	1,027	5,478	2,965	5,513	908	22	3,035	8,467	3,868	9,575
Corn Belt	15,414	4,459	5,486	8,849	3,884	13,458	2,973	358	789	27,236	8,701	19,733
Ohio	1,506	592	615	2,456	1,133	2,791	745	97	212	4,707	1,822	3,618
Indiana	1,376	391	444	1,569	540	1,531	520	78	216	3,465	1,009	2,191
Illinois	1,972	422	764	1,449	416	1,564	481	34	108	3,902	872	2,436
Iowa	2,620	812	1,104	539	193	1,025	773	52	97	3,932	1,057	2,226
Missouri	7,940	2,242	2,559	2,836	1,602	6,547	454	97	156	11,230	3,941	9,262
Northern Plains	22,738	11,083	48,259	649	114	1,595	2,001	321	1,924	25,388	11,518	51,778
North Dakota	4,268	1,665	6,288	196	36	206	565	53	683	5,029	1,754	7,177
South Dakota	7,540	4,208	13,739	49	18	495	519	115	865	8,108	4,341	15,099
Nebraska	2,998	3,254	18,970	123	37	572	463	97	176	3,584	3,388	19,718
Kansas	7,932	1,956	9,262	281	23	322	454	56	200	8,667	2,035	9,784
Appalachia	8,619	3,510	6,348	17,240	7,765	37,458	1,285	326	1,534	27,144	11,601	45,340
Virginia	1,621	791	979	5,630	1,835	6,160	249	66	371	7,500	2,692	7,510
West Virginia	467	328	1,074	685	916	8,821	70	21	192	1,222	1,265	10,087
North Carolina	1,012	426	543	6,909	2,798	7,022	399	118	295	8,320	3,342	7,860
Kentucky	2,880	937	2,063	1,289	868	8,001	303	52	429	4,472	1,857	10,493
Tennessee	2,639	1,028	1,689	2,727	1,348	7,454	264	69	247	5,630	2,445	9,390

See notes at end of table.

Appendix table 1—Acres in pasture and rangeland, forest land, and other land uses by land capability classification, State, and region, 1982—continued

State and region	Pasture and rangeland			Forest land			Other land			Total		
	I-III	IV	V-VIII	I-III	IV	V-VIII	I-III	IV	V-VIII	I-III	IV	V-VIII
	1,000 acres											
Southeast	7,867	5,965	2,247	23,065	15,455	27,452	2,370	479	2,943	33,302	21,899	32,642
South Carolina	932	169	107	6,147	1,751	3,127	181	52	493	7,260	1,972	3,727
Georgia	1,881	680	416	7,123	5,499	9,262	347	69	540	9,351	6,248	10,218
Florida	2,761	4,297	1,019	4,598	4,430	3,402	1,583	282	1,689	8,942	9,009	6,110
Alabama	2,293	819	705	5,197	3,775	11,661	259	76	221	7,749	4,670	12,587
Delta States	8,171	1,571	2,800	17,333	5,596	19,548	655	130	3,128	26,159	7,297	25,476
Mississippi	2,562	413	1,000	4,714	1,942	8,587	175	27	152	7,451	2,382	9,739
Arkansas	3,640	933	1,385	5,533	2,057	6,749	150	39	136	9,323	3,029	8,270
Louisiana	1,969	225	415	7,086	1,597	4,212	330	64	2,840	9,385	1,886	7,467
Southern Plains	43,877	18,246	72,469	5,358	2,128	8,377	794	204	1,587	50,029	20,578	82,433
Oklahoma	7,710	3,758	10,729	747	615	5,177	178	53	190	8,635	4,426	16,096
Texas	36,167	14,488	61,740	4,611	1,513	3,200	616	151	1,397	41,394	16,152	66,337
Mountain	16,149	23,978	151,270	194	1,180	25,934	489	329	10,192	16,832	25,487	187,396
Montana	10,074	8,580	22,219	91	322	4,815	228	141	977	10,393	9,043	28,011
Idaho	988	1,435	5,584	86	595	3,296	81	60	392	1,155	2,090	9,272
Wyoming	1,922	4,832	20,915	2	34	951	30	33	917	1,954	4,899	22,783
Colorado	1,962	5,982	17,538	7	89	3,934	103	59	893	2,072	6,130	22,365
New Mexico	685	2,612	37,849	0	13	4,721	19	21	2,159	704	2,646	44,729
Arizona	37	68	30,923	0	115	4,646	0	0	2,573	37	183	38,142
Utah	308	404	8,268	8	12	3,214	21	15	1,935	337	431	13,417
Nevada	173	65	7,974	0	0	357	7	0	346	180	65	8,677
Pacific	4,852	6,194	26,811	3,443	6,318	30,037	471	402	5,043	8,766	12,914	61,891
Washington	1,430	1,342	4,209	2,307	3,255	7,128	161	102	652	3,898	4,699	11,989
Oregon	1,520	1,234	8,604	676	866	10,348	140	56	432	2,336	2,156	19,384
California	1,902	3,618	13,998	460	2,197	12,561	170	244	3,959	2,532	6,059	30,518
Hawaii	178	138	658	88	156	1,229	2	4	821	268	298	2,708
United States[1]	138,761	78,543	320,968	106,922	57,620	228,653	14,320	3,450	36,596	260,003	139,613	586,217

[1]Includes all States except Alaska.

Note: See glossary for land capability classification.

Source: (8).

Appendix table 2—Acreage with high and medium potential for conversion to cropland by source, State, and region, 1982

State and region	Pasture and rangeland			Forest land			Other land			Total		Total
	High	Medium	Total	High	Medium	Total	High	Medium	Total	High	Medium	
	1,000 acres											
Northeast	922	2,773	3,695	545	3,352	3,897	99	208	307	1,566	6,333	7,899
Maine	61	164	225	81	424	505	18	22	40	160	610	770
New Hampshire	22	19	41	7	94	100	1	4	5	30	116	146
Vermont	64	119	183	37	137	173	0	5	5	101	261	362
Massachusetts	20	64	84	15	99	113	1	11	13	36	174	210
Rhode Island	2	4	6	0	21	21	1	0	1	3	26	29
Connecticut	27	42	69	41	181	222	6	19	26	74	242	317
New York	286	1,381	1,667	62	739	800	1	17	18	348	2,137	2,485
New Jersey	16	43	59	33	129	163	4	25	29	53	197	250
Pennsylvania	343	794	1,137	198	1,065	1,264	59	88	147	600	1,947	2,547
Delaware	11	14	25	24	205	229	1	3	3	36	221	257
Maryland	70	129	199	49	258	307	6	14	20	126	401	527
Lake States	1,667	2,817	4,484	841	4,791	5,632	144	456	600	2,652	8,064	10,716
Michigan	439	856	1,295	238	1,465	1,703	38	176	214	714	2,497	3,211
Wisconsin	531	805	1,336	202	1,265	1,468	31	63	94	764	2,133	2,898
Minnesota	697	1,156	1,853	401	2,060	2,461	76	217	293	1,174	3,434	4,608
Corn Belt	4,477	8,398	12,875	938	3,324	4,262	186	554	740	5,601	12,276	17,877
Ohio	389	719	1,108	249	829	1,079	45	169	214	684	1,717	2,400
Indiana	420	639	1,059	230	578	808	23	83	106	673	1,300	1,973
Illinois	469	861	1,330	142	481	623	34	76	110	645	1,417	2,063
Iowa	784	1,458	2,242	46	220	266	59	149	208	889	1,826	2,715
Missouri	2,415	4,723	7,138	271	1,216	1,487	25	78	103	2,710	6,017	8,728
Northern Plains	4,550	15,847	20,397	54	216	270	146	375	521	4,750	16,438	21,188
North Dakota	699	2,358	3,057	18	85	102	51	95	146	768	2,537	3,305
South Dakota	1,271	4,893	6,164	1	5	6	20	56	76	1,293	4,954	6,246
Nebraska	1,025	4,501	5,526	19	58	77	45	103	148	1,089	4,662	5,751
Kansas	1,555	4,095	5,650	16	69	84	30	121	151	1,600	4,285	5,885
Appalachia	2,631	5,137	7,768	2,005	8,325	10,330	96	323	419	4,732	13,785	18,517
Virginia	233	824	1,057	278	1,997	2,275	3	42	45	514	2,863	3,377
West Virginia	112	547	659	25	605	630	8	24	33	145	1,177	1,322
North Carolina	276	708	984	1,150	4,156	5,306	55	205	259	1,481	5,068	6,548
Kentucky	969	1,609	2,578	150	522	672	19	37	56	1,138	2,168	3,306
Tennessee	1,041	1,450	2,491	402	1,044	1,446	12	15	27	1,454	2,510	3,964

See notes at end of table.

Appendix table 2—Acreage with high and medium potential for conversion to cropland by source, State, and region, 1982—continued

State and region	Pasture and rangeland			Forest land			Other land			Total		Total
	High	Medium	Total	High	Medium	Total	High	Medium	Total	High	Medium	
	1,000 acres											
Southeast	1,987	5,541	7,528	1,576	6,817	8,393	88	207	295	3,651	12,565	16,216
South Carolina	120	416	536	117	1,070	1,187	1	17	19	239	1,504	1,742
Georgia	547	979	1,526	775	2,439	3,213	34	76	109	1,355	3,494	4,848
Florida	507	2,668	3,175	185	1,021	1,206	37	74	111	730	3,762	4,492
Alabama	815	1,477	2,292	499	2,287	2,786	16	41	57	1,329	3,806	5,135
Delta States	1,518	3,637	5,155	1,042	4,046	5,087	41	75	116	2,601	7,758	10,359
Mississippi	630	1,130	1,760	400	1,333	1,733	4	13	17	1,034	2,476	3,510
Arkansas	442	1,753	2,195	251	979	1,230	3	19	21	696	2,751	3,447
Louisiana	447	755	1,202	390	1,734	2,124	34	44	78	871	2,532	3,403
Southern Plains	5,340	20,587	25,927	78	814	892	41	156	197	5,459	21,557	27,016
Oklahoma	1,461	4,649	6,110	43	365	408	16	45	61	1,520	5,059	6,579
Texas	3,880	15,940	19,820	35	450	485	25	111	136	3,940	16,500	20,441
Mountain	2,767	12,559	15,326	28	213	241	87	156	243	2,882	12,928	15,810
Montana	1,191	4,692	5,883	2	47	50	24	49	73	1,217	4,788	6,006
Idaho	232	804	1,036	24	140	164	17	31	48	273	975	1,248
Wyoming	282	1,758	2,040	1	3	3	2	13	15	284	1,774	2,058
Colorado	361	2,009	2,370	2	18	19	16	17	33	379	2,044	2,423
New Mexico	197	980	1,177	0	0	0	5	20	25	202	1,000	1,202
Arizona	372	1,735	2,107	0	2	2	14	23	37	386	1,760	2,146
Utah	67	334	401	0	3	3	7	2	9	74	339	413
Nevada	63	247	310	0	0	0	2	0	2	65	247	312
Pacific	1,165	3,715	4,880	144	1,837	1,981	25	110	135	1,334	5,662	6,996
Washington	325	1,052	1,377	109	1,574	1,684	14	62	77	449	2,689	3,137
Oregon	311	1,117	1,428	11	177	188	4	23	27	327	1,317	1,643
California	529	1,547	2,075	24	86	110	7	25	31	559	1,658	2,217
Hawaii	29	58	88	12	24	37	2	0	2	43	82	125
United States[1]	27,053	81,069	108,122	7,263	33,759	41,022	955	2,620	3,575	35,271	117,448	152,719

[1]Includes all States except Alaska. Acres may not sum to totals due to rounding.

Source: (8).

Appendix table 3—Percentage share of land with high and medium potential for conversion to cropland by source, State, and region, 1982

State and region	Pasture and rangeland			Forest land			Other land			Total		Total
	High	Medium	Total	High	Medium	Total	High	Medium	Total	High	Medium	
	Percent											
Northeast	3.4	3.4	3.4	7.5	9.9	9.5	10.3	7.9	8.6	4.4	5.4	5.2
Maine	.2	.2	.2	1.1	1.3	1.2	1.9	.8	1.1	.5	.5	.5
New Hampshire	.1	1	1	.1	.3	.2	.1	.1	.1	.1	.1	.1
Vermont	.2	.1	.2	.5	4	.4	1	.2	.2	.3	.2	.2
Massachusetts	.1	.1	.1	.2	.3	.3	.1	.4	.3	.1	.1	.1
Rhode Island	1	1	1	1	.1	.1	.1	1	1	1	1	1
Connecticut	.1	.1	.1	.6	.5	.5	.7	.7	.7	.2	.2	.2
New York	1.1	1.7	1.5	.8	2.2	2.0	.1	.7	.5	1.0	1.8	1.6
New Jersey	.1	.1	.1	.5	.4	.4	.4	.9	.8	.2	.2	.2
Pennsylvania	1.3	1.0	1.1	2.7	3.2	3.1	6.1	3.4	4.1	1.7	1.7	1.7
Delaware	1	1	1	.3	.6	.6	.1	.1	.1	.1	.2	.2
Maryland	.3	.2	.2	.7	.8	.7	.7	.5	.6	.4	.3	.3
Lake States	6.2	3.5	4.1	11.6	14.2	13.7	15.1	17.4	16.8	7.5	6.9	7.0
Michigan	1.6	1.1	1.2	3.3	4.3	4.2	3.9	6.7	6.0	2.0	2.1	2.1
Wisconsin	2.0	1.0	1.2	2.8	3.7	3.6	3.2	2.4	2.6	2.2	1.8	1.9
Minnesota	2.6	1.4	1.7	5.5	6.1	6.0	7.9	8.3	8.2	3.3	2.9	3.0
Corn Belt	16.5	10.4	11.9	12.9	9.8	10.4	19.5	21.2	20.7	15.9	10.5	11.7
Ohio	1.4	.9	1.0	3.4	2.5	2.6	4.7	6.4	6.0	1.9	1.5	1.6
Indiana	1.6	.8	1.0	3.2	1.7	2.0	2.4	3.2	3.0	1.9	1.1	1.3
Illinois	1.7	1.1	1.2	2.0	1.4	1.5	3.5	2.9	3.1	1.8	1.2	1.4
Iowa	2.9	1.8	2.1	.6	.7	.6	6.2	5.7	5.8	2.5	1.6	1.8
Missouri	8.9	5.8	6.6	3.7	3.6	3.6	2.6	3.0	2.9	7.7	5.1	5.7
Northern Plains	16.8	19.5	18.9	.7	.6	.7	15.3	14.3	14.6	13.5	14.0	13.9
North Dakota	2.6	2.9	2.8	.2	.3	.2	5.4	3.6	4.1	2.2	2.2	2.2
South Dakota	4.7	6.0	5.7	1	1	1	2.1	2.1	2.1	3.7	4.2	4.1
Nebraska	3.8	5.6	5.1	.3	.2	.2	4.7	3.9	4.1	3.1	4.0	3.8
Kansas	5.7	5.1	5.2	.2	.2	.2	3.1	4.6	4.2	4.5	3.6	3.9
Appalachia	9.7	6.3	7.2	27.6	24.7	25.2	10.1	12.3	11.7	13.4	11.7	12.1
Virginia	.9	1.0	1.0	3.8	5.9	5.5	.3	1.6	1.3	1.5	2.4	2.2
West Virginia	.4	.7	.6	.3	1.8	1.5	.8	.9	.9	.4	1.0	.9
North Carolina	1.0	.9	.9	15.8	12.3	12.9	5.7	7.8	7.2	4.2	4.3	4.3
Kentucky	3.6	2.0	2.4	2.1	1.5	1.6	2.0	1.4	1.6	3.2	1.8	2.2
Tennessee	3.8	1.8	2.3	5.5	3.1	3.5	1.3	.6	.8	4.1	2.1	2.6

See notes at end of table.

Appendix table 3—Percentage share of land with high and medium potential for conversion to cropland by source, State, and region, 1982—continued

State and region	Pasture and rangeland			Forest land			Other land			Total		Total
	High	Medium	Total	High	Medium	Total	High	Medium	Total	High	Medium	
	Percent											
Southeast	7.3	6.8	7.0	21.7	20.2	20.5	9.2	7.9	8.3	10.4	10.7	10.6
South Carolina	.4	.5	.5	1.6	3.2	2.9	.1	.7	.5	.7	1.3	1.1
Georgia	2.0	1.2	1.4	10.7	7.2	7.8	3.5	2.9	3.1	3.8	3.0	3.2
Florida	1.9	3.3	2.9	2.6	3.0	2.9	3.9	2.8	3.1	2.1	3.2	2.9
Alabama	3.0	1.8	2.1	6.9	6.8	6.8	1.7	1.6	1.6	3.8	3.2	3.4
Delta States	5.6	4.5	4.8	14.3	12.0	12.4	4.3	2.9	3.2	7.4	6.6	6.8
Mississippi	2.3	1.4	1.6	5.5	3.9	4.2	.4	.5	.5	2.9	2.1	2.3
Arkansas	1.6	2.2	2.0	3.5	2.9	3.0	.3	.7	.6	2.0	2.3	2.3
Louisiana	1.7	.9	1.1	5.4	5.1	5.2	3.5	1.7	2.2	2.5	2.2	2.2
Southern Plains	19.7	25.4	24.0	1.1	2.4	2.2	4.3	6.0	5.5	15.5	18.4	17.7
Oklahoma	5.4	5.7	5.7	.6	1.1	1.0	1.7	1.7	1.7	4.3	4.3	4.3
Texas	14.3	19.7	18.3	.5	1.3	1.2	2.6	4.2	3.8	11.2	14.0	13.4
Mountain	10.2	15.5	14.2	.4	.6	.6	9.1	5.9	6.8	8.2	11.0	10.4
Montana	4.4	5.8	5.4	[1]	.1	.1	2.5	1.9	2.1	3.5	4.1	3.9
Idaho	.9	1.0	1.0	.3	.4	.4	1.8	1.2	1.3	.8	.8	.8
Wyoming	1.0	2.2	1.9	[1]	[1]	[1]	.2	.5	.4	.8	1.5	1.3
Colorado	1.3	2.5	2.2	[1]	.1	[1]	1.7	.7	.9	1.1	1.7	1.6
New Mexico	.7	1.2	1.1	[1]	[1]	[1]	.5	.8	.7	.6	.9	.8
Arizona	1.4	2.1	1.9	[1]	[1]	[1]	1.5	.9	1.0	1.1	1.5	1.4
Utah	.2	.4	.4	[1]	[1]	[1]	.7	.1	.2	.2	.3	.3
Nevada	.2	.3	.3	[1]	[1]	[1]	.2	.1	.2	.2	.2	.2
Pacific	4.3	4.6	4.5	2.0	5.4	4.8	2.6	4.2	3.8	3.8	4.8	4.6
Washington	1.2	1.3	1.3	1.5	4.7	4.1	1.5	2.4	2.1	1.3	2.3	2.1
Oregon	1.1	1.4	1.3	.2	.5	.5	.5	.9	.8	.9	1.1	1.1
California	2.0	1.9	1.9	.3	.3	.3	.7	.9	.9	1.6	1.4	1.5
Hawaii	.1	.1	.1	.2	.1	.1	.3	[1]	.1	.1	.1	.1
United States[2]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[1]Less than 0.5 percent.
[2]Includes all States except Alaska. Percentages may not sum to totals due to rounding.

Source: (8).

Other Reports of Interest

Idling Erodible Cropland: Impacts on Production, Prices, and Government Costs, Shwu-Eng H. Webb, Clayton W. Ogg, and Wen-Yuan Huang. AER-550. April 1986. 40 pp. $2.00. Order SN: 001-019-00443-6 from GPO.

This study developed land group criteria that link productivity with potential soil erodibility, identifying 32 million acres of U.S. cropland as highly erodible and fragile. Finds that a Government program to put erodible land into a conservation reserve would reduce erosion.

Swampbusting: Wetland Conversion and Farm Programs, by Ralph E. Heimlich and Linda L. Langner. AER-551. June 1986. 40 pp. $2.00. Order SN: 001-019-00459-2 from GPO.

Investigates implications of the swampbuster provision (or wetland conservation provision) of the 1985 Food Security Act. Includes background on past losses of wetlands, and analyzes their potential for agricultural conversion.

Trends in Double Cropping, by Roger W. Hexem and Robert F. Boxley. AER-553. June 1986. 20 pp. $1.25. Order SN: 001-019-00462-2 from GPO.

U.S. farmers increased double-cropped acreage from 5.8 to 12.4 million acres during 1974-82, from 1.9 percent of all acres harvested in 1974 to nearly 4 percent in 1982. Double cropping was expanding because of rising commodity prices and producers' adoption of advanced technologies in plant varieties and farming practices.

An Economic Analysis of USDA Erosion Control Programs: A New Perspective, by Roger Strohbehn. AER-560. August 1986. 80 pp. $3.75. Order SN: 001-019-00448-7 from GPO.

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